Video Article

ESSURE® REMOVAL IN 10 STEPS
Chene et al. laparoscopic Essure® removal

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Abstract
Many women request Essure® removal because of possible side effects related to the device itself. We aim to describe the surgical technique in 10 steps in the video to make this procedure easy and safe. Laparoscopic Essure® removal in symptomatic women may be associated with improvement of quality of life. The standardization of the laparoscopic Essure® removal procedure could help to diminish the risk of fractures of the device with this easy and safe 10-steps- procedure.

Keywords: Essure, surgical technique, salpingectomy, laparoscopy

Introduction
Several studies have demonstrated an improvement of symptomatology and quality of life after removal of Essure® device in symptomatic patients [1, 2]. The pathophysiology of adverse effects related to the device may be explained by the heavy metals release from a possible corrosion of the implants [3]. Therefore, because the risk of fracture is up to 30% of cases [2], the implant should be removed completely and safely [4]. Our aim is to give a step-by-step description of an easy surgical technique with a demonstrative video.

Surgery technique
This video clearly described the laparoscopic technique in 10 steps (see the video): (1) pelvis exploration, (2) peritoneal cytology (for the heavy metal analysis and secondly usually done in our department during prophylactic and opportunistic salpingectomy because of the potential tubal pathway for ovarian carcinogenesis) [3, 5], (3) Longitudinal incision over the proximal fallopian tube towards the uterine horn (see figure 1), (4) circumferential incision around the interstitial tubal portion, (5) Circumferential incision on the 2/3 anterior portion of the fallopian tube (see figure 2), (6) horizontal incision of the tube under the proximal rectangular end of the microinsert, (7) hemostasis of the uterine horn. (8) Essure® removal under visual control, (9) Inspection and dissection of the Essure® device on a surgical drape (see figure 3), (10) Bilateral salpingectomy and other associated procedures, peritoneal washing and prevention of postsurgical adhesions.
Conclusion
As compared with laparoscopic myomectomy, the small incision in the myometrium to perform this mini-cornupectomy should theoretically limit the risk of uterine rupture if the patient wish to conceive via IVF later but other studies are needed to clearly determine this risk [6]. Since improvement of quality of life has been demonstrated after laparoscopic Essure® removal in symptomatic women [1, 2], the standardization of the removal procedure could help to diminish the risk of fractures of the device.

References

Figure 1. Longitudinal incision over the proximal fallopian tube towards the uterine horn
Figure 2. Circumferential incision on the 2/3 anterior portion of the fallopian tube

Figure 3. Inspection of the complete implant Essure®